## (19) World Intellectual Property Organization

International Bureau





## (43) International Publication Date 7 April 2005 (07.04.2005)

#### PCT

# (10) International Publication Number WO 2005/030140 A2

(51) International Patent Classification<sup>7</sup>:

**A61K** 

(21) International Application Number:

PCT/US2004/031523

(22) International Filing Date:

24 September 2004 (24.09.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/506,181 26 September 2003 (26.09.2003) US 60/535,377 9 January 2004 (09.01.2004) US 60/577,384 4 June 2004 (04.06.2004) US

(71) Applicant (for all designated States except US): EX-ELIXIS, INC. [US/US]; 170 Harbor Way, P.O. Box 511, South San Francisco, CA 94083-0511 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BANNEN, Lynne Canne [US/US]: 801 St. Lawrence Drive, Pacifica, CA 94044 (US). CHAN, Diva Sze-Ming [US/US]; 1775 46th Avenue, San Francisco, CA 94122 (US). CHEN, Jeff [US/US]; 140 South Van Ness Avenue, Apt. #407, San Francisco, CA 94103 (US). DALRYMPLE, Lisa Esther [US/US]; 387 17th Avenue, San Francisco, CA 94121 (US). FORSYTH, Timothy Patrick [US/US]; 1928 Wingate Way, Hayward, CA 94541 (US). HUYNH, Tai Phat [US/US]; 1530 6th Avenue #2, Oakland, CA 94606 (US). JAMMALAMADAKA, Vasu [US/US]; 2806 Maria Street, Pleasanton, CA 94588 (US). KHOURY, Richard George [US/US]; 225 Poseidon Lane, Redwood City, CA 94065 (US). LEAHY, James William [US/US]; 1185 Camellia Court, San Leandro, CA 94577 (US). MAC, Morrison B. [US/US]; 2567 30th Avenue, San Francisco, CA 94116 (US). MANN, Grace [US/US]; 231 CAllippe Court, Brisbane, CA 94005 (US). MANN,

Larry W. [US/US]; 780 Blair Island Road, Apt. #304, Redwood City, CA 94063 (US). NUSS, John M. [US/US]; 16 Woodranch Circle, Danville, CA 94506 (US). PARKS, Jason Jevious [US/US]; 4005 Cowell Blvd., Apt. 506, Davis, CA 95616 (US). TAKEUCHI, Craig Stacy [CA/US]; 1090 Carolan Avenue, Apt. 302, Burlingame, CA 94010 (US). WANG, Yong [CN/US]; 170 Harbor Way, South San Francisco, CA 94080 (US). XU, Wei [US/US]; 327 Glasgow Circle, Danville, CA 94526 (US).

- (74) Agents: GRIEDEL, Brian D.? et al.; 170 Harbor Way, P.O. Box 511, South San Francisco, CA 94083-0511 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### **Published:**

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: C-MET MODULATORS AND METHODS OF USE

(57) Abstract: The present invention provides compounds for modulating protein kinase enzymatic activity for modulating cellular activities such as proliferation, differentiation, programmed cell death, migration and chemoinvasion. More specifically, the invention provides quinazolines and quinolines which inhibit, regulate and/or modulate kinase receptor, particularly c-Met, KDR, c-Kit, flt-3 and flt-4, signal transduction pathways related to the changes in cellular activities as mentioned above, compositions which contain these compounds, and methods of using them to treat kinase-dependent diseases and conditions. The present invention also provides methods for making compounds as mentioned above, and compositions which contain these compounds.





## c-Met Modulators and Method of Use

### CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. provisional patent applications 60/506,181 filed on September 26, 2003, entitled "c-Met Modulators and Method of Use," naming Bannen, Lynne et. al as inventors, 60/535,377 filed on January 9, 2004, entitled "c-Met Modulators and Method of Use," naming Bannen, Lynne et. al as inventors and 60/577,384 filed on June 4, 2004, entitled "Synthesis of Quinoline and Quinazoline Kinase Modulators," naming Bannen, Lynne et. al as inventors; each of which is hereby incorporated by reference in its entirety for all purposes.

#### FIELD OF THE INVENTION

[0002] This invention relates to compounds for modulating protein kinase enzymatic activity for modulating cellular activities such as proliferation, differentiation, programmed cell death, migration and chemoinvasion. Even more specifically, the invention relates to quinazolines and quinolines which inhibit, regulate and/or modulate kinase receptor signal transduction pathways related to the changes in cellular activities as mentioned above, compositions which contain these compounds, methods of using them to treat kinase-dependent diseases and conditions, synthesis of the compounds as well as processes for formulating the compounds for pharmaceutical purposes.

### BACKGROUND OF THE INVENTION

- [0003] Improvements in the specificity of agents used to treat cancer is of considerable interest because of the therapeutic benefits which would be realized if the side effects associated with the administration of these agents could be reduced. Traditionally, dramatic improvements in the treatment of cancer are associated with identification of therapeutic agents acting through novel mechanisms.
- [0004] Protein kinases are enzymes that catalyze the phosphorylation of proteins, in particular, hydroxy groups on tyrosine, serine and threonine residues of proteins. The consequences of this seemingly simple activity are staggering; cell differentiation and proliferation; i.e., virtually all aspects of cell life in one-way or another depend on protein kinase activity. Furthermore, abnormal protein kinase activity has been related to a host of

disorders, ranging from relatively non-life threatening diseases such as psoriasis to extremely virulent diseases such as glioblastoma (brain cancer).

[0005] Protein kinases can be categorized as receptor type or non-receptor type. Receptor-type tyrosine kinases have an extracellular, a transmembrane, and an intracellular portion, while non-receptor type tyrosine kinases are wholly intracellular.

[0006] Receptor-type tyrosine kinases are comprised of a large number of transmembrane receptors with diverse biological activity. In fact, about 20 different subfamilies of receptor-type tyrosine kinases have been identified. One tyrosine kinase subfamily, designated the HER subfamily, is comprised of EGFR (HER1), HER2, HER3, and HER4. Ligands of this subfamily of receptors identified so far include epithelial growth factor, TGF-alpha, amphiregulin, HB-EGF, betacellulin and heregulin. Another subfamily of these receptor-type tyrosine kinases is the insulin subfamily, which includes INS-R, IGF-IR, and IR-R. The PDGF subfamily includes the PDGF-alpha and beta receptors, CSFIR, c-Kit and FLK-II. Then there is the FLK family, which is comprised of the kinase insert domain receptor (KDR), fetal liver kinase-1 (FLK-1), fetal liver kinase-4 (FLK-4) and the fms-like tyrosine kinase-1 (flt-1). The PDGF and FLK families are usually considered together due to the similarities of the two groups. For a detailed discussion of the receptor-type tyrosine kinases, see Plowman et al., DN&P 7(6): 334-339, 1994, which is hereby incorporated by reference.

[0007] The non-receptor type of tyrosine kinases is also comprised of numerous subfamilies, including Src, Frk, Btk, Csk, Abl, Zap70, Fes/Fps, Fak, Jak, Ack, and LIMK. Each of these subfamilies is further sub-divided into varying receptors. For example, the Src subfamily is one of the largest and includes Src, Yes, Fyn, Lyn, Lck, Blk, Hck, Fgr, and Yrk. The Src subfamily of enzymes has been linked to oncogenesis. For a more detailed discussion of the non-receptor type of tyrosine kinases, see Bolen, Oncogene, 8:2025-2031 (1993), which is hereby incorporated by reference.

[0008] Since protein kinases and their ligands play critical roles in various cellular activities, deregulation of protein kinase enzymatic activity can lead to altered cellular properties, such as uncontrolled cell growth associated with cancer. In addition to oncological indications, altered kinase signaling is implicated in numerous other pathological diseases. These include, but are not limited to: immunological disorders, cardiovascular diseases, inflammatory diseases, and degenerative diseases. Therefore,

both receptor and non-receptor protein kinases are attractive targets for small molecule drug discovery.

- [0009] One particularly attractive goal for therapeutic use of kinase modulation relates to oncological indications. For example, modulation of protein kinase activity for the treatment of cancer has been demonstrated successfully with the FDA approval of Gleevec® (imatinib mesylate, produced by Novartis Pharmaceutical Corporation of East Hanover, NJ) for the treatment of Chronic Myeloid Leukemia (CML) and gastrointestinal stroma cancers (GIST). Gleevec is a c-Kit and Abl kinase inhibitor.
- [0010] Modulation (particularly inhibition) of cell proliferation and angiogenesis, two key cellular processes needed for tumor growth and survival (Matter A. Drug Disc Technol 2001 6, 1005-1024), is an attractive goal for development of small-molecule drugs. Antiangiogenic therapy represents a potentially important approach for the treatment of solid tumors and other diseases associated with dysregulated vascularization, including ischemic coronary artery disease, diabetic retinopathy, psoriasis and rheumatoid arthritis. As well, cell antiproliferative agents are desirable to slow or stop the growth of tumors.
- [0011] One particularly attractive target for small-molecule modulation, with respect to antiangiogenic and antiproliferative activity is c-Met. The kinase, c-Met, is the prototypic member of a subfamily of heterodimeric receptor tyrosine kinases (RTKs) which include Met, Ron and Sea. Expression of c-Met occurs in a wide variety of cell types including epithelial, endothelial and mesenchymal cells where activation of the receptor induces cell migration, invasion, proliferation and other biological activities associated with "invasive cell growth." As such, signal transduction through c-Met receptor activation is responsible for many of the characteristics of tumor cells.
- [0012] The endogenous ligand for c-Met is the hepatocyte growth factor (HGF), a potent inducer of angiogenisis, also known as "scatter factor" (SF). Binding of HGF to c-Met induces activation of the receptor via autophosphorylation resulting in an increase of receptor dependent signaling, which promotes cell growth and invasion. Anti-HGF antibodies or HGF antagonists have been shown to inhibit tumor metastasis *in vivo* (See: Maulik et al Cytokine & Growth Factor Reviews 2002 13, 41-59).
- [0013] Tumor growth progression requires the recruitment of new blood vessels into the tumor from preexisting vessels as well as invasion, adhesion and proliferation of malignant cells. Accordingly, c-Met overexpression has been demonstrated on a wide

variety of tumor types including breast, colon, renal, lung, squamous cell myeloid leukemia, hemangiomas, melanomas, astrocytomas, and glioblastomas. Additionally activating mutations in the kinase domain of c-Met have been identified in hereditary and sporadic renal papilloma and squamous cell carcinoma. (See: Maulik et al Cytokine & growth Factor reviews 2002 13, 41-59; Longati et al Curr Drug Targets 2001, 2, 41-55; Funakoshi et al Clinica Chimica Acta 2003 1-23). Thus modulation of c-Met is desirable as a means to treat cancer and cancer-related disease.

- [0014] The Eph receptors comprise the largest family of receptor tyrosine kinases and are divided into two groups, EphA and EphB, based on their sequence homology. The ligands for the Eph receptors are ephrin, which are membrane anchored. Ephrin A ligands bind preferentially to EphA receptors whilst ephrin B ligands bind to EphB receptors. Binding of ephrin to Eph receptors causes receptor autophosphorylation and typically requires a cell-cell interaction since both receptor and ligand are membrane bound.
- [0015] Overexpression of Eph receptors has been linked to increased cell proliferation in a variety of tumors (Zhou R 1998 Pharmacol Ther. 77, 151-181; Kiyokawa E, Takai S, Tanaka M et al 1994 Cancer Res 54, 3645-3650; Takai N Miyazaki T, Fujisawa K, Nasu K and Miyakawa. 2001 Oncology reports 8, 567-573). The family of Eph receptor tyrosine kinases and their ephrin ligands play important roles in a variety of processes during embryonic development and also in pathological angiogenesis and potentially metastasis. Therefore modulation of Eph receptor kinase activity should provide means to treat or prevent disease states associated with abnormal cell proliferation such as those described above.
- [0016] Inhibition of EGF, VEGF and ephrin signal transduction will prevent cell proliferation and angiogenesis, two key cellular processes needed for tumor growth and survival (Matter A. Drug Disc. Technol. 2001 6, 1005-1024). EGF and VEGF receptors are previously described targets for small molecule inhibition. KDR and flt-4 are both VEGF receptors
- [0017] One particularly attractive target for small-molecule modulation is c-Kit. The proto-oncogene *c-Kit* was first identified as the oncogenic component of the acutely transforming Hardy-Zuckerman 4-feline sarcoma virus (Besmer et al Nature 1986 320:415-421). c-Kit (also called stem cell factor receptor or steel factor receptor) is a type 3 receptor tyrosine kinase (RTK) belonging to the platelet-derived growth factor receptor subfamily. c-Kit binds the ligand stem cell factor (SCF), and triggers its multiple signal

transduction pathways including Src family kinases, phosphatidyl-inositol 3 kinase, the Ras-Raf-Map kinase cascade, and phospholipase C (Broudy et al Blood 1999 94: 1979-1986; Lennartsson et al Oncogene 1999 18: 5546-5553; Timokhina et al EMBO J 1998 17;6250-6262; Chian et al Blood 2001 98(5)1365-1373; Blume-Jensen et al Curr Biol 1998 8:779-782; Kissel et al EMBO J 2000 19:1312-1326; Lennartsson et al. Oncogene 1999 18: 5546-5553; Sue et al Blood, 199892:1242-1149; Lev etal EMBO J 1991 10:647-654). c-Kit is required for normal hematopoiesis, melanonogenesis, and gametogenesis. c-Kit is expressed in mast cells, immature myeloid cells, melanocytes, epithelial breast cells and the interstitial cells of Cajal (ICC). In mast cells, it is required not only for the differentiation, maturation, chemotaxis, and haptotaxis but also for the promotion of survival and proliferation.

[0018] Mutations in c-Kit have been implicated in human disease. Mutations in the juxtamembrane domain are found in many human gastrointestinal stromal tumors, and mutations in the kinase domain are found in mastocytosis, germ cell tumors, acute myeloid leukemia (AML), NK lymphoma, and other hematologic disorders (Hirota et al Science 1998 279:577-580; Singer et al J Clin Oncol 2002 203898-3905; Longley et al Proc Natl Aca Sci USA 1999: 1609-1614; Tian et al Am J Pathol 1999 154: 1643-1647; Beghini et al Blood 2000 95:726-727; Hongyo et al Cancer Res 2000 60:2345-2347). These mutations result in ligand-independent tyrosine kinase activity, autophosphorylation of c-Kit, uncontrolled cell proliferation, and stimulation of downstream signaling pathways. Overexpression of c-Kit and c-Kit ligand have also been described in other tumors including small-cell lung cancer, neuroblastomas, gynecological tumors, and colon carcinoma, which might result in autocrine or paracrine c-Kit activation.

[0019] The overexpression of c-Kit has also been implicated in the development of neoplasia associated with neurofibromatosis type 1 (NF1). Mutations in the tumor suppressor gene NFI lead to a deficiency in neurofibromin, a GTPase-activating protein for Ras. This deficiency results in abnormal proliferation of Schwann cells in the peripheral nervous system, and predisposes affected individuals to peripheral nerve sheath tumors (neurofibromas), astrocytomas (optic pathway gliomas), learning disabilities, seizures, strokes, macrocephaly, vascular abnormalities, and juvenile myelomonocytic leukemia (Lynch & Gutmann Neurol Clin 2002 20:841-865). Genetic experiments in mice demonstrate that haploinsufficiency at NFI partially rescues some of the phenotypes associated with mutations in the gene for c-Kit, indicating that these genes function along

a common developmental pathway (Ingram, et al. J. Exp Med 2000 191:181-187). Also, c-Kit is expressed in schwannoma cells from NF1 patients, but not in normal schwann cells (Ryan et al. J Neurosci Res 1994 37:415-432). These data indicate that elevated c-Kit expression and sensitivity to stem cell factor may play important roles in the development of proliferative disorders associated with NF-1. Therefore, c-Kit inhibitors may be effective chemotherapeutic agents for treating patients with NF-1.

- [0020] GISTs are the most common mesenchymal tumors of the gastrointestinal tract, and they are generally resistant to chemotherapy and radiation therapy. However, recent results with the c-Kit/BCR-Abl inhibitor STI571 indicate that targeting c-Kit may be an effective therapeutic strategy for this disease (Eisenberg & Mehren Expert Opin Pharmacother 2003 4:869-874). Malignant mast cell disease often suggests an extremely poor prognosis, and no reliable effective chemotherapeutic agents have been identified (Marone et al Leuk Res 2001 25:583-594). Systemic mast cell disorders have been treated with interferon-alpha, although the effectiveness of this therapy has been variable (Lehmann & Lammle Ann Hematol 1999 78:483-484; Butterfield Br J Dermatol 1998 138: 489-495). Therefore, activated c-Kit might serve as a therapeutic target in GISTs and mast cell disease, as well as other disorders associated with activated c-Kit.
- [0021] Flt-3 is normally expressed on hematopoietic progenitor cells and a subset of mature myeloid and lymphoid cells, where it modulates cell survival and proliferation. Flt-3 is constitutively activated via mutation, either in the juxtamembrane region or in the activation loop of the kinase domain, in a large proportion of patients with AML (Reilly Leuk Lymphoma 2003 44: 1-7). Also, mutations in flt-3 are significantly correlated with poor prognosis in AML patients (Sawyers Cancer Cell 2002 1: 413-415).
- [0022] Accordingly, the identification of small-molecule compounds that specifically inhibit, regulate and/or modulate the signal transduction of kinases, particularly including c-Met, KDR, c-Kit, flt-3, and flt-4, is desirable as a means to treat or prevent disease states associated with abnormal cell proliferation and angiogenesis, and is an object of this invention.
- [0023] Quinolines and quinazolines bearing substitution, for example at the two, four, six and seven positions of their fused ring system have been shown to be particularly attractive targets for kinase inhibition by a number of groups. Conventional quinoline and quinazoline kinase inhibitors typically have fairly simple substitution about the quinoline or quinazoline fused ten-membered ring system, but recently more complex molecules are

being disclosed. For example, we have previously disclosed, in U.S. provisional patent applications 60/506,181 and 60/535,377 which are both incorporated by reference herein in their entirety for all purposes, that certain quinolines and quinazolines are particularly well suited as kinase modulators, more particularly inhibitors of for example c-Met, KDR, c-Kit, flt-3, and flt-4. These molecules in some cases are particularly complex and although they can be made via conventional methods, more efficient routes are desirable, especially in a pharmaceutical setting.

[0024] Conventional methods of making quinolines and quinazolines with the aforementioned substitution patterns usually involve linear construction of a quinoline or quinazoline template upon which relatively simple substitutions are appended. With the advent of more complex substitution about such quinolines and quinazolines (vide supra), for example side chains containing cyclic and bicyclic systems with multiple functional groups, conventional methods of synthesis become problematic due to the linear or serial reactions used. Indeed, as such molecules become more complex and the utility of such complex groups is realized, the quinoline and quinazoline ring system becomes more of a sub-structure than a main structure of such inhibitors. Thus it is desirable to find more efficient methods of synthesis, particularly convergent syntheses which are an object of this invention.

### SUMMARY OF THE INVENTION

- [0025] In one aspect, the present invention provides compounds for modulating kinase activity and methods of treating diseases mediated by kinase activity utilizing the compounds and pharmaceutical compositions thereof. Diseases mediated by kinase activity include, but are not limited to, diseases characterized in part by migration, invasion, proliferation and other biological activities associated with invasive cell growth. In particular to this invention is modulation, even more particularly inhibition, of c-Met, KDR, c-Kit, flt-3, and flt-4.
- [0026] In another aspect, the invention provides methods of screening for modulators of c-Met, KDR, c-Kit, flt-3, and flt-4 activity. The methods comprise combining a composition of the invention, a kinase, e.g. c-Met, KDR, c-Kit, flt-3, or flt-4, and at least one candidate agent and determining the effect of the candidate agent on the c-Met, KDR, c-Kit, flt-3, or flt-4, activity.
- [0027] In yet another aspect, the invention also provides pharmaceutical kits comprising one or more containers filled with one or more of the ingredients of pharmaceutical

compounds and/or compositions of the present invention, including, one or more kinase, e.g. c-Met, KDR, c-Kit, flt-3, or flt-4, enzyme activity modulators as described herein. Such kits can also include, for example, other compounds and/or compositions (e.g., diluents, permeation enhancers, lubricants, and the like), a device(s) for administering the compounds and/or compositions, and written instructions in a form prescribed by a governmental agency regulating the manufacture, use or sale of pharmaceuticals or biological products, which instructions can also reflects approval by the agency of manufacture, use or sale for human administration.

- [0028] In another aspect, the invention also provides a diagnostic agent comprising a compound of the invention and, optionally, pharmaceutically acceptable adjuvants and excipients.
- [0029] In still yet another aspect, the present invention provides processes for making compounds, and pharmaceutical compositions thereof, for modulating kinase activity and treating diseases mediated by kinase activity. In particular to this invention are methods for making quinolines and quinazolines used for modulation of kinase activity, even more particularly inhibition of kinase activity, and yet even more particularly inhibition of c-Met, KDR, c-Kit, flt-3, and flt-4.
- [0030] These and other features and advantages of the present invention will be described in more detail below with reference to the associated drawings.

### DETAILED DESCRIPTION OF THE INVENTION

- [0031] The compositions of the invention are used to treat diseases associated with abnormal and or unregulated cellular activities. Disease states which can be treated by the methods and compositions provided herein include, but are not limited to, cancer (further discussed below), immunological disorders such as rheumatoid arthritis, graft-host diseases, multiple sclerosis, psoriasis; cardiovascular diseases such as artheroscrosis, myocardioinfarction, ischemia, stroke and restenosis; other inflammatory and degenerative diseases such as interbowel diseases, osteoarthritus, macular degeneration, diabetic retinopathy.
- [0032] It is appreciated that in some cases the cells may not be in a hyper- or hypoproliferative and/or migratory state (abnormal state) and still require treatment. For example, during wound healing, the cells may be proliferating "normally", but

proliferation and migration enhancement may be desired. Alternatively, reduction in "normal" cell proliferation and/or migration rate may be desired.

[0033] Thus, in one aspect the present invention comprises a compound for modulating kinase activity according to Formula I,

or a pharmaceutically acceptable salt, hydrate, or prodrug thereof, wherein,

 $R^1$  is selected from -H, halogen, -OR<sup>3</sup>, -NO<sub>2</sub>, -NH<sub>2</sub>, -NR<sup>3</sup>R<sup>4</sup>, and optionally substituted lower alkyl;

 $A^1$  is selected from =N-, =C(H)-, and =C(CN)-;

Z is selected from  $-S(O)_{0-2}$ -, -O-, and  $-NR^5$ -;

Ar is either a group of formula III, or of formula III,

$$A^{2} = A^{3}$$

$$(B^{2})_{q}$$

$$III$$

$$III$$

wherein,

 $R^2$  is selected from -H, halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, and optionally substituted lower alkyl;

q is 0 to 4;

G is a group -B-L-T, wherein

B is selected from absent,  $-N(R^{13})$ -,  $-N(SO_2R^{13})$ -, -O-,  $-S(O)_{0-2}$ -, and -C(=O)-;

$$\begin{split} L \text{ is selected from absent, -C(=S)N(R^{13})-, -C(=NR^{14})N(R^{13})-, -SO_2N(R^{13})-, -SO_2-, \\ -C(=O)N(R^{13})-, -N(R^{13})-, -C(=O)C_{1-2}alkylN(R^{13})-, -N(R^{13})C_{1-2}alkylC(=O)-, \\ -C(=O)C_{0-1}alkylC(=O)N(R^{13})-, -C_{0-4}alkylene-, -C(=O)C_{0-1}alkylC(=O)OR^3-, \\ \end{split}$$

-C(=NR $^{14}$ )C<sub>0-1</sub>alkylC(=O)-, -C(=O)-, -C(=O)C<sub>0-1</sub>alkylC(=O)-, and an optionally substituted four to six-membered heterocyclyl containing between one and three annular heteroatoms including at least one nitrogen; and

T is selected from -H, -R<sup>13</sup>, -C<sub>0-4</sub>alkyl, -C<sub>0-4</sub>alkylQ, -OC<sub>0-4</sub>alkylQ, -C<sub>0-4</sub>alkylOQ, -N(R<sup>13</sup>)C<sub>0-4</sub>alkylQ, -SO<sub>2</sub>C<sub>0-4</sub>alkylQ, -C(=O)C<sub>0-4</sub>alkylQ, -C<sub>0-4</sub>alkylN(R<sup>13</sup>)Q, and -C(=O)N(R<sup>13</sup>)C<sub>0-4</sub>alkylQ, wherein each of the aforementioned C<sub>0-4</sub>alkyl is optionally substituted;

J is selected from  $-S(O)_{0-2}$ , -O-, and  $-NR^{15}$ -;

 $R^3$  is -H or  $R^4$ ;

R<sup>4</sup> is selected from optionally substituted lower alkyl, optionally substituted aryl, optionally substituted lower arylalkyl, optionally substituted heterocyclyl, and optionally substituted lower heterocyclylalkyl; or

R<sup>3</sup> and R<sup>4</sup>, when taken together with a common nitrogen to which they are attached, form an optionally substituted five- to seven-membered heterocyclyl, said optionally substituted five- to seven-membered heterocyclyl optionally containing at least one additional annular heteroatom selected from N, O, S, and P;

 $A^2$  and  $A^3$  are each independently selected from =N-, =C( $R^2$ )-;

R<sup>5</sup> is -H or optionally substituted lower alkyl;

D is selected from -O-, -S(O)<sub>0-2</sub>-, and -NR<sup>15</sup>-;

 $R^{50}$  is either  $R^3$ , or according to formula IV;

$$(X^{1})_{m}$$
  $(X^{3})_{n}$   $(X^{1})_{p}$ 

IV

wherein  $X^1$ ,  $X^2$ , and optionally  $X^3$ , represent the atoms of a saturated bridged ring system, said saturated bridged ring system comprising up to four annular heteroatoms represented by any of  $X^1$ ,  $X^2$ , and  $X^3$ ; wherein,

each  $X^1$  is independently selected from  $-C(R^6)R^7$ -, -O-,  $-S(O)_{0.2}$ -, and  $-NR^8$ -;

each X<sup>2</sup> is independently an optionally substituted bridgehead methine or a bridgehead nitrogen;

each  $X^3$  is independently selected from  $-C(R^6)R^7$ -, -O-,  $-S(O)_{0-2}$ -, and  $-NR^8$ -;

### Y is either:

an optionally substituted lower alkylene linker, between D and either 1) any annular atom of the saturated bridged ring system, except  $X^2$  when  $X^2$  is a bridgehead nitrogen, or 2) any heteroatom, represented by any of  $R^6$  or  $R^7$ ; provided there are at least two carbon atoms between D and any annular heteroatom of the saturated bridged ring system or any heteroatom represented by any of  $R^6$  or  $R^7$ ;

or Y is absent, when Y is absent, said saturated bridged ring system, is directly attached to D via an annular carbon of said saturated bridged ring system, unless D is -SO<sub>2</sub>-, in which case said saturated bridged ring system, is directly attached to D via an any annular atom of said saturated bridged ring system;

m and p are each independently 1-4;

n is 0-2, when n = 0, then there is a single bond between the two bridgehead  $X^2$ 's;

 $R^6$  and  $R^7$  are each independently selected from -H, halogen, trihalomethyl, -CN, -NH<sub>2</sub>, -NO<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -S(O)<sub>0-2</sub>R<sup>4</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>4</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>4</sup>, -N(R<sup>3</sup>)C(O)R<sup>3</sup>, -NCO<sub>2</sub>R<sup>3</sup>, -C(O)R<sup>3</sup>, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted lower arylalkyl, optionally substituted heterocyclyl, optionally substituted lower heterocyclylalkyl, and a bond to either Y or D; or

R<sup>6</sup> and R<sup>7</sup>, when taken together are oxo; or

R<sup>6</sup> and R<sup>7</sup>, when taken together with a common carbon to which they are attached, form a optionally substituted three- to seven-membered spirocyclyl, said optionally substituted three- to seven-membered spirocyclyl optionally containing at least one additional annular heteroatom selected from N, O, S, and P;

 $R^8$  is selected from  $-R^3$ , Y,  $-SO_2NR^3R^4$ ,  $-CO_2R^4$ ,  $-C(O)NR^3R^3$ ,  $-SO_2R^4$ , and  $-C(O)R^3$ ;

 $R^{13}$  is selected from -H, -C(=O)R<sup>3</sup>, -C(=O)OR<sup>3</sup>, -C(=O)SR<sup>3</sup>, -SO<sub>2</sub>R<sup>4</sup>, -C(=O)N(R<sup>3</sup>)R<sup>3</sup>, and optionally substituted lower alkyl,

two  $R^{13}$ , together with the atom or atoms to which they are attached, can combine to form a heteroalicyclic optionally substituted with between one and four of  $R^{60}$ , said heteroalicyclic can have up to four annular heteroatoms, and said heteroalicyclic can have an aryl or heteroaryl fused thereto, in which case said aryl or heteroaryl is optionally substituted with an additional one to four of  $R^{60}$ ;

 $R^{14}$  is selected from -H, -NO<sub>2</sub>, -NH<sub>2</sub>, -N( $R^3$ ) $R^4$ , -CN, -OR<sup>3</sup>, optionally substituted lower alkyl, optionally substituted heteroalicyclylalkyl, optionally substituted aryl, optionally substituted arylalkyl and optionally substituted heteroalicyclic;

 $R^{15}$  is a group  $-M^1-M^2$ , wherein  $M^1$  is selected from absent,  $-C(=S)N(R^{13})$ -,  $-C(=NR^{14})N(R^{13})$ -,  $-SO_2N(R^{13})$ -,  $-SO_2$ -,  $-C(=O)N(R^{13})$ -,  $-C(=O)C(=O)N(R^{13})$ -,  $-C_0$ -4alkylene-, -C(=O)-, and an optionally substituted four to six-membered hetercyclyl annular containing between one and three heteratoms including at least one nitrogen; and  $M^2$  is selected from -H,  $-C_{0-6}$ alkyl, alkoxy,  $-C(=O)C_{0-4}$ alkylQ,  $-C_{0-4}$ alkylQ,  $-OC_{0-4}$ alkylQ-,  $-N(R^{13})C_{0-4}$ alkylQ-, and  $-C(=O)N(R^{13})C_{0-4}$ alkylQ; and

Q is a five- to ten-membered ring system, optionally substituted with between zero and four of R<sup>20</sup>;

 $R^{20}$  is selected from -H, halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, and optionally substituted lower alkyl;

 $R^{60}$  is selected from -H, halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted heteroarylalkyl, and optionally substituted arylalkyl;

two of R<sup>60</sup>, when attached to a non-aromatic carbon, can be oxo;

with the proviso, only when Ar is according to formula II, if Y is a  $C_{1-6}$  alkylene; Z is -NH- or -N(CH<sub>3</sub>)-;  $R^1$  is a  $C_{1-6}$ alkyl optionally substituted in the 2-position by -OH or a  $C_{1-6}$ 4alkoxy group;  $R^2$  is -H or halogen; n=0; and the atoms,  $X^1$ , of one bridge of the saturated bridged ring system, when combined with both bridgehead atoms,  $X^2$ , of the saturated bridged ring system, represent:

1) either a pyrrolidine or a piperidine, and any atom,  $X^1$  or  $X^2$ , of either of said pyrrolidine or said piperidine is attached to Y, then the other bridge of said saturated bridged ring system cannot be any one of  $-OC(O)CH_2$ -,

-CH<sub>2</sub>OC(O)-, -OC(O)CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>OC(O)CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OC(O)-, -OC(O)CH<sub>2</sub>NH-, -OC(O)CH<sub>2</sub>N( $C_{1-4}$ alkyl)-, and -OC(O)CH<sub>2</sub>O-; or

- 2) either a piperazine or a 4-( $C_{1-4}$ alkyl)-piperazine, and any atom,  $X^1$  or  $X^2$ , of either of said piperazine or said 4-( $C_{1-4}$ alkyl)-piperazine is attached to Y, then the other bridge of said saturated bridged ring system, only when attached via the 2- and the 3-position of either of said piperazine or said 4-( $C_{1-4}$ alkyl)-piperazine, cannot be one of -CH<sub>2</sub>OC(O)CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OC(O)-, and either of the two aforementioned bridges optionally substituted by one or two  $C_{1-2}$ alkyl groups; or
- 3) a piperazine, and any atom, X¹ or X², of said piperazine is attached to Y, then the other bridge of said saturated bridged ring system, only when attached via the 3- and the 4-position of said piperazine, cannot be one of -C(O)OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>OC(O)CH<sub>2</sub>-, and either of the two aforementioned bridges optionally substituted by one or two C<sub>1-2</sub>alkyl groups, and only when either of the two aforementioned bridges are attached to the 3-position of said piperazine via their left-hand end as depicted above; or
- 4) a 2-oxomorpholine, said 2-oxomorpholine attached to Y via its 4-position, then the other bridge of said saturated bridged ring system, only when attached via the 5- and the 6-position of said 2-oxomorpholine, cannot be one of -(CH<sub>2</sub>)<sub>g</sub>-, -CH<sub>2</sub>WCH<sub>2</sub>-, -CH<sub>2</sub>WCH<sub>2</sub>-, and -CH<sub>2</sub>CH<sub>2</sub>WCH<sub>2</sub>-, wherein W is -O-, -S(O)<sub>0-2</sub>-, -NH-, or -N(C<sub>1-4</sub>alkyl)- wherein g is 2, 3, or 4;

and with the proviso that when Z is-O-, Ar is according to formula II, and the portion of G directly attached to Ar is selected from:

~ N O >	Z S HN S	∠ <sub>H</sub> N HN Y
Z S S S S S S S S S S S S S S S S S S S		~H
s	~s~~>	0  -   St-   St-

then R<sup>50</sup> must be of formula IV;

and with the proviso that when Ar is phenylene or substituted phenylene, Z is -S(O)<sub>0-2</sub>- or

-O-, then the portion of G directly attached to Ar cannot contain when  $R^{70}$  is selected from -H,  $C_{1\text{-4}}$ alkyl, and  $C_{1\text{-4}}$ alkoxyl.

[0034] In one example, the compound is according to paragraph [0033], wherein Z is either -O- or -NR<sup>5</sup>-.

[0035] In another example, the compound is according to paragraph [0034], wherein G is selected from the following:

R <sup>13</sup> R <sup>13</sup> I Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	R <sup>13</sup> R <sup>13</sup> Q Q Q	$\begin{array}{c c} & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$
$\begin{array}{c c} & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$	Q	R <sup>13</sup> N E O O O O O O O O O O O O O O O O O O
R <sup>13</sup> N O O O O O O O O O O O O O O O O O O	R <sup>13</sup> N N O-2	$ \begin{array}{c c}  & & & \\  & & & &$
R <sup>13</sup> R <sup>13</sup> I Q	R <sup>13</sup> O-4 O	R <sup>13</sup> Q Q Q
P13 10-2 Q	O R 13 P Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	O O O O O O O O O O O O O O O O O O O

O O 1-3 N Q R <sup>13</sup>	$ \begin{array}{c} O \\ \downarrow \\ O \\ \downarrow \\ O \end{array} $ $ \begin{array}{c} O \\ \downarrow \\ O \\ O \\ O \end{array} $ $ \begin{array}{c} O \\ O \\ O \\ O \\ O \\ O \end{array} $	O
Q N N R 13	$ \begin{array}{c c}  & & & \\  & & & &$	Q N N R <sup>13</sup>
R <sup>13</sup> R <sup>13</sup> I Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	R <sup>13</sup> R <sup>13</sup> I O-3 Q	$ \begin{array}{c c}  & & \\$
$ \begin{array}{c c}  & & \\$	N N R <sup>13</sup>	Q N N R <sup>13</sup>
R <sup>13</sup> () <sup>1-2</sup> () <sup>0-3</sup> ()	R <sup>13</sup> Q Q	R <sup>13</sup> () Q 0-4 N S N Q 0-4
R <sup>13</sup> () <sub>0-3</sub> Q N SH	R <sup>13</sup> ( ) <sub>0-3</sub> Q OH	R <sup>13</sup> () <sub>0-3</sub> R <sup>13</sup> N
N N N R13	R <sup>13</sup> O R <sup>13</sup>	$\left(\begin{array}{c} \\ \\ \\ \\ \end{array}\right)^{0-2}$
O O O 1-3 Q E O E O O O O O O O O O O O O O O O O	0   S   O-4   O-4	O O R <sup>13</sup> N Q R <sup>13</sup> O Q

wherein wherein Q,  $R^{20}$ , and  $R^{13}$  are as defined above; each E is selected from -O-, -N( $R^{13}$ )-, -CH<sub>2</sub>-, and -S(O)<sub>0-2</sub>-; M is selected from -O-, -N( $R^{13}$ )-, -CH<sub>2</sub>-, and -C(=O)N( $R^{13}$ )-; each V is independently either =N- or =C(H)-; each methylene in any of the above formulae is independently optionally substituted with  $R^{25}$ ; and  $R^{25}$  is selected from halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N( $R^3$ )SO<sub>2</sub>R<sup>3</sup>, -N( $R^3$ )C(O)R<sup>3</sup>, -N( $R^3$ )CO<sub>2</sub>R<sup>3</sup>, -C(O)R<sup>3</sup>, optionally substituted aryl, optionally substituted arylalkyl, heteroarylalkyl, and optionally substituted lower alkyl; two of  $R^{25}$ , together with the carbon or carbons to which they are attached, can combine to form a three- to seven-membered alicyclic or heteroalicyclic, two of  $R^{25}$  on a single carbon can be oxo.

[0036] In another example, the compound is according to paragraph [0035], wherein Ar is according to one of formula IIa, IIb, and IIIa.

$$(R^2)_{1-4}$$

$$(R^2)_{1-3}$$

$$(R^2)_{1-3}$$

$$(R^2)_{1-3}$$

$$(R^2)_{1-3}$$

$$(R^2)_{1-3}$$

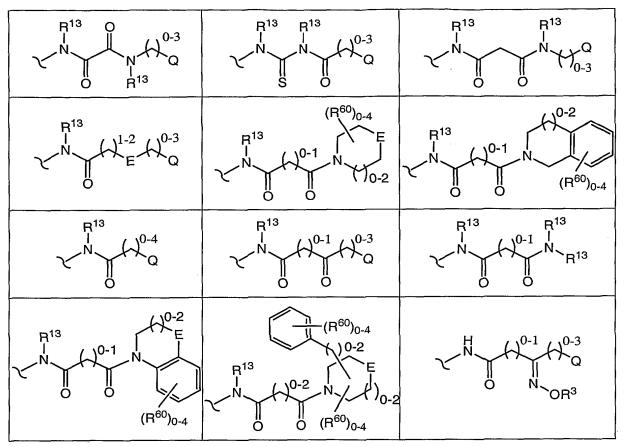
[0037] In another example, the compound is according to paragraph [0036], wherein D is -O- and R<sup>1</sup> is -OR<sup>3</sup>.

[0038] In another example, the compound is according to paragraph [0037], wherein -O-R<sup>50</sup> and R<sup>1</sup> are interchangeably located at the 6-position and 7-position of the quinazoline or quinoline according to formula I.

[0039] In another example, the compound is according to paragraph [0038], wherein R<sup>1</sup> is -OH or -OC<sub>1-6</sub>alkyl.

[0040] In another example, the compound is according to paragraph [0039], wherein  $A^1$  is =N- or =C(H)-.

[0041] In another example, the compound is according to paragraph [0040], wherein G is selected from:



wherein Q,  $R^{20}$ ,  $R^{13}$ , E, and  $R^{60}$  are as defined above; each methylene in any of the above formulae, other than those in a depicted ring, is independently optionally substituted with  $R^{25}$ ; and  $R^{25}$  is selected from halogen, trihalomethyl, oxo, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)C(O)R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -C(O)R<sup>3</sup>, optionally substituted aryl, optionally substituted arylalkyl, heteroarylalkyl, and optionally substituted lower alkyl; two of  $R^{25}$ , together with the carbon or carbons to which they are attached, can combine to form a three- to seven-membered alicyclic or heteroalicyclic.

[0042] In another example, the compound is according to paragraph [0041], wherein Q is selected from:

$$(R^{20})_{0-4}$$
  $P$   $||$   $(R^{20})_{0-4}$   $||$   $(R^{20})_{0-3}$ 

wherein R<sup>20</sup> is defined as above, and P is a five- to seven-membered ring, including the two shared carbons of the aromatic ring to which P is fused, P optionally containing between one and three heteroatoms.

[0043] In another example, the compound is according to paragraph [0042], wherein Ar is according to formula IIa, and G is selected from:

wherein Q, R<sup>20</sup>, R<sup>13</sup>, E, and R<sup>60</sup> are as defined above, and each methylene in any of the above formulae, other than those in a depicted ring, is independently optionally substituted with R<sup>25</sup>; and R<sup>25</sup> is selected from halogen, trihalomethyl, oxo, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)C(O)R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -C(O)R<sup>3</sup>, optionally substituted aryl, optionally substituted arylalkyl, heteroarylalkyl, and optionally substituted lower alkyl; two of R<sup>25</sup>, together with the carbon or carbons to which they are attached, can combine to form a three- to seven-membered alicyclic or heteroalicyclic.

[0044] In another example, the compound is according to paragraph [0042], wherein Ar is according to formula IIb, and G is selected from:

wherein Q, R<sup>20</sup>, R<sup>13</sup>, E, and R<sup>60</sup> are as defined above, and each methylene in any of the above formulae, other than those depicted in a ring, is independently optionally substituted with R<sup>25</sup>; and R<sup>25</sup> is selected from halogen, trihalomethyl, oxo, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)C(O)R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -C(O)R<sup>3</sup>, optionally substituted aryl, optionally substituted arylalkyl, heteroarylalkyl, and optionally substituted lower alkyl; two of R<sup>25</sup>, together with the carbon or carbons to which they are attached, can combine to form a three- to seven-membered alicyclic or heteroalicyclic.

- [0045] In another example, the compound is according to paragraph [0044], wherein the methylene between the two carbonyls of the depicted formulae is di-substituted with either optionally substituted lower alkyl, or an optionally substituted spirocycle.
- [0046] In another example, the compound is according to either [0043] or paragraph [0044], wherein  $R^{50}$  is a heteroalicylic or a  $C_{1-6}$ alkyl-heteroalicylic.
- [0047] In another example, the compound is according to paragraph [0046], wherein at least one of  $\mathbb{R}^2$  is halogen.
- [0048] In another example, the compound is according to paragraph [0046], wherein R<sup>50</sup> is according to formula IV.
- [0049] In another example, the compound is according to paragraph [0048], wherein the saturated bridged ring system according to formula IV has a geometry selected from the group consisting of [4.4.0], [4.3.0], [4.2.0], [4.1.0], [3.3.0], [3.2.0], [3.1.0], [3.3.3], [3.3.2], [3.3.1], [3.2.2], [3.2.1], [2.2.2], and [2.2.1].
- [0050] In another example, the compound is according to paragraph [0049], wherein Y is selected from -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>-, and absent.
- [0051] In another example, the compound is according to paragraph [0050], wherein n is 0 and the saturated bridged ring system according to formula IV has a geometry selected from the group consisting of [4.4.0], [4.3.0], [4.2.0], [4.1.0], [3.3.0], [3.2.0], and [3.1.0].

[0052] In another example, the compound is according to paragraph [0051], wherein said saturated bridged ring system contains at least one annular nitrogen or at least one annular oxygen.

- [0053] In another example, the compound is according to paragraph [0052], wherein said saturated bridged ring system contains -NR<sup>8</sup>-, wherein R<sup>8</sup> is selected from -H, optionally substituted lower alkyl, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -SO<sub>2</sub>R<sup>3</sup>, and -C(O)R<sup>3</sup>.
- [0054] In another example, the compound is according to paragraph [0052], wherein said saturated bridged ring system is of formula V,

 $\mathbf{V}$ 

wherein  $U^1$  is selected from -O-, -S(O)<sub>0-2</sub>-, -NR<sup>8</sup>-, -CR<sup>6</sup>R<sup>7</sup>-, and absent; and e is 0 or 1.

- [0055] In another example, the compound is according to paragraph [0054], wherein Y is -CH<sub>2</sub>-.
- [0056] In another example, the compound is according to paragraph [0055], wherein  $U^1$  is -NR<sup>8</sup>-, wherein R<sup>8</sup> is selected from -H, optionally substituted lower alkyl, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -SO<sub>2</sub>R<sup>3</sup>, and -C(O)R<sup>3</sup>.
- [0057] In another example, the compound is according to paragraph [0055], wherein  $U^1$  is -O-.
- [0058] In another example, the compound is according to paragraph [0055], wherein U<sup>1</sup> is absent.
- [0059] In another example, the compound is according to paragraph [0052], wherein Y is selected from -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>-, and absent.
- [0060] In another example, the compound is according to paragraph [0059], wherein said saturated bridged ring system is of formula VI,

VI

wherein R<sup>9</sup>, R<sup>10</sup>, and R<sup>11</sup> are each independently selected from -H, and -OR<sup>12</sup>; or

R<sup>9</sup> is selected from -H, and -OR<sup>12</sup>, and R<sup>10</sup> and R<sup>11</sup>, when taken together, are either an optionally substituted alkylidene or an oxo;

R<sup>12</sup> is selected from -H, -C(O)R<sup>3</sup>, optionally substituted lower alkylidyne, optionally substituted lower arylalkylidyne, optionally substituted lower heterocyclylalkylidyne, optionally substituted lower alkylidene, optionally substituted lower alkylidenearyl, optionally substituted lower alkylideneheterocyclyl, optionally substituted lower alkyl, optionally substituted lower alkylaryl, optionally substituted aryl, optionally substituted lower heterocyclylalkyl, and optionally substituted heterocyclyl;

or two  $R^{12}$ 's, when taken together, form 1) a corresponding spirocyclic ketal when said two  $R^{12}$ 's stem from  $R^{10}$  and  $R^{11}$ , or 2) a corresponding cyclic ketal when said two  $R^{12}$ 's stem from  $R^9$  and one of  $R^{10}$  and  $R^{11}$ .

[0061] In another example, the compound is according to paragraph [0060], wherein one of  $R^{10}$  and  $R^{11}$  is  $-OR^{12}$ , wherein  $R^{12}$  is selected from -H, -C(O) $R^3$ , and optionally substituted lower alkyl; and  $R^9$  and the other of  $R^{10}$  and  $R^{11}$  are both -H.

[0062] In another example, the compound is according to paragraph [0061], wherein Y is either -CH<sub>2</sub>- or absent.

[0063] In another example, the compound is according to paragraph [0062], wherein R<sup>9</sup> is an alkyl group containing at least one fluorine substitution thereon.

[0064] In another example, the compound is according to paragraph [0053], wherein said saturated bridged ring system is of formula VII.

VII

[0065] In another example, the compound is according to paragraph [0064], wherein Y is either - $CH_2$ - or absent.

[0066] In another example, the compound is according to paragraph [0065], wherein R<sup>8</sup> is methyl or ethyl.

[0067] In another example, the compound is according to paragraph [0053], wherein said saturated bridged ring system is of formula VIII.

[0068] In another example, the compound is according to paragraph [0067], wherein Y is -CH<sub>2</sub>-.

[0069] In another example, the compound is according to paragraph [0068], wherein R<sup>8</sup> is methyl or ethyl.

[0070] In another example, the compound is according to paragraph [0052], wherein said saturated bridged ring system is of formula IX

$$0 \xrightarrow{R^3}_{N}$$

' IX

wherein  $U^2$  is selected from -O-, -S(O)<sub>0-2</sub>-, -NR<sup>8</sup>-, -CR<sup>6</sup>R<sup>7</sup>-, and absent.

[0071] In another example, the compound is according to paragraph [0070], wherein R<sup>3</sup> of formula **IX** is selected from -H and optionally substituted alkyl.

[0072] In another example, the compound is according to paragraph [0071], wherein  $U^2$  is either -CR<sup>6</sup>R<sup>7</sup>- or absent.

[0073] In another example, the compound is according to paragraph [0072], wherein  $U^2$  is either -CH<sub>2</sub>- or absent.

[0074] In another example, the compound is according to paragraph [0073], wherein Y is -CH<sub>2</sub>-.

[0075] In another example, the compound is according to paragraph [0053], wherein said saturated bridged ring system is according to formula X.

 $\mathbf{X}$ 

[0076] In another example, the compound is according to paragraph [0075], wherein R<sup>8</sup> is methyl or ethyl.

[0077] In another example, the compound is according to paragraph [0033], selected from Table 1.

Table 1

Entry	Name	Structure
1	N-[({3-fluoro-4-[(6- (methyloxy)-7-{[(3aR,6aS)- octahydrocyclopenta[c]pyrrol- 5-ylmethyl]oxy}quinazolin-4- yl)oxy]phenyl}amino)carbono thioyl]-2-phenylacetamide	
2	N-{[(3-fluoro-4-{[7- ({[(3aR,6aS)-2- methyloctahydrocyclopenta[c] pyrrol-5-yl]methyl}oxy)-6- (methyloxy)quinazolin-4- yl]oxy}phenyl)amino]carbono thioyl}-2-phenylacetamide	H N N N N N N N N N N N N N N N N N N N
3	N-{[(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)(methyl)amino]carbonothioyl}-2-phenylacetamide	
4	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)imidazolidin-2-one	P NH
5	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-3-(phenylmethyl)imidazolidin-2-one	P N N

Table 1

Entry	Name	Structure
6	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-3-(phenylacetyl)imidazolidin-2-one	-o F N-N-N-O
7	ethyl [(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)amino](oxo)acet ate	N-NH O-
8	N-{[(4-{[6,7-bis(methyloxy)quinazolin-4-yl]amino}-3-fluorophenyl)amino]carbonothioyl}-2-phenylacetamide	F S O O O O O O O O O O O O O O O O O O
9	N'-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N-methyl-N-(2-phenylethyl)sulfamide	
10	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-3-(phenylmethyl)-1,2,4-oxadiazol-5-amine	F N N N N N N N N N N N N N N N N N N N
11	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)piperidin-2-one	

Table 1

		Table 1
Entry	Name	Structure
12	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-(phenylmethyl)ethanediamide	F O O NH HN
13	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-4-phenyl-1,3-thiazol-2-amine	F S N N N N N N N N N N N N N N N N N N
14	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-(2-phenylethyl)ethanediamide	NH HN—
15	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-1-phenylmethanesulfonamide	F O S O NH
16	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-2-phenylethanesulfonamide	NH O S
17	4-{[6,7- bis(methyloxy)quinolin-4- yl]oxy}-3-fluoro-N- (phenylmethyl)benzenesulfon amide	P O S NH

Table 1

Entry	Name	Structure
18	4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluoro-N-methyl-N-(phenylmethyl)benzenesulfon amide	
19	4-{[6,7- bis(methyloxy)quinolin-4- yl]oxy}-3-fluoro-N-(2- phenylethyl)benzenesulfonam ide	F O S NH
20	4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluoro-N-methyl-N-(2-phenylethyl)benzenesulfonamide	
21	4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluoro-N-(3-phenylpropyl)benzenesulfonamide	F O N S N H
22	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)pyrrolidin-2-one	F N
23	4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl (phenylmethyl)carbamate	ON NH

Table 1

Entry	Name	Structure
24	4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl (2-phenylethyl)carbamate	
25	4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluoro-N-methyl-N-(3-phenylpropyl)benzenesulfonamide	
26	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-phenylethanediamide	F O O NH HN
27	N-{[(3-fluoro-4-{[7-{[(2-methyloctahydrocyclopenta[c] pyrrol-5-yl)methyl]oxy}-6-(methyloxy)quinolin-4-yl]oxy}phenyl)amino]carbono thioyl}-2-phenylacetamide	
28	N-[(Z)-[(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)amino](imino)methyl]-2-phenylacetamide	P NH ON NH O
29	4-{[6,7- bis(methyloxy)quinolin-4- yl]oxy}-3-fluoro-N-[2- (phenyloxy)ethyl]benzenesulf onamide	F O I S NH

Table 1

		Table 1
Entry	Name	Structure
30	N,N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-bis-(3-phenylpropane-1-sulfonamide)	-0 F 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
31	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-3-phenylpropane-1-sulfonamide	
32	N2-[(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)sulfonyl]-N1-phenylglycinamide	F O II NH O HN
33	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}pyridin-3-yl)-2-phenylacetamide	
34	N-{[(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}pyridin-3-yl)amino]carbonothioyl}-2-phenylacetamide	
35	6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-1,3-benzothiazol-2-amine	-O NH2

Table 1

Entry	Name	Structure
36	6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-1,3-benzothiazol-2-amine	N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-
37	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-1,3-benzothiazol-2-yl)-2-phenylacetamide	S N O
38	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-(2-morpholin-4-ylethyl)ethanediamide	P O O O NH HN NO
39	benzyl-{[4-(6,7-dimethoxy-quinolin-4-yloxy)-3-fluoro-phenylcarbamoyl]-methyl}-carbamic acid tert-butyl ester	F ON N
40	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-(phenylmethyl)glycinamide	
41	N2-acetyl-N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-(phenylmethyl)glycinamide	F N N N N N N N N N N N N N N N N N N N

Table 1

Entry	Name	Structure
42	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-1,3-benzothiazol-2-yl)-2-phenylacetamide	
43	benzyl-{[6-(6,7-dimethoxy-quinolin-4-yloxy)-pyridin-3-ylcarbamoyl]-methyl}-carbamic acid tert-butyl ester	N N N N N N N N N N N N N N N N N N N
44	N1-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}pyridin-3-yl)-N2-(phenylmethyl)glycinamide	
45	N2-acetyl-N1-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}pyridin-3-yl)-N2-(phenylmethyl)glycinamide	
46	N-(6-{[6,7- bis(methyloxy)quinolin-4- yl]oxy}pyridin-3-yl)-3- phenylpropanamide	N NH
47	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}pyridin-3-yl)-4-phenylbutanamide	

Table 1

Entry	Name	Structure
48	N1-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}pyridin-3-yl)-N2-methyl-N2-(phenylmethyl)glycinamide	
49	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-{2-[4-(methyloxy)phenyl]ethyl}ethanediamide	N-NH HN-Q
50	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-methyl-N2-(phenylmethyl)glycinamide	F N N N N N N N N N N N N N N N N N N N
51	4-[(2-amino-1,3-benzothiazol-6-yl)oxy]-6,7-bis(methyloxy)-1-(2-oxo-2-phenylethyl)quinolinium	S NH <sub>2</sub> N+  N+  N+  N+  N+  N+  N+  N+  N+  N
52	N-{[(4-{[6,7-bis(methyloxy)quinolin-4-yl]amino}phenyl)amino]carbonothioyl}-2-phenylacetamide	
53	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-1,3-benzothiazol-2-yl)-3-phenylpropanamide	

Table 1

Entry	Name	Structure
54	N-{[(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)amino]carbonothioyl}-2-phenylacetamide	CI N N N N N N N N N N N N N N N N N N N
55	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-(2,3-dihydro-1H-inden-1-yl)ethanediamide	F O O NH HN
56	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-(2,3-dihydro-1H-inden-2-yl)ethanediamide	NH HN
57	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-(1,2,3,4-tetrahydronaphthalen-1-yl)ethanediamide	F O O O O O O O O O O O O O O O O O O O
58	N'-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N-(2-phenylethyl)-N-(phenylmethyl)sulfamide	-o NHOON NHO
59	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-(trifluoroacetyl)glycinamide	F O HN F F

Table 1

Γ		
Entry	Name	Structure
60	N-{[4-(6,7-dimethoxy-quinolin-4-yloxy)-3-fluoro-phenylcarbamoyl]-methyl}-benzamide	F O HN NH
61	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}pyridin-3-yl)-N'-(4-fluorophenyl)propanediamide	N N N N N N N N N N N N N N N N N N N
62	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'- [(2S)-1,2,3,4- tetrahydronaphthalen-2-yl]ethanediamide	NH HN:
63	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-[2-(4-methylphenyl)ethyl]ethanediamide	NH HN—
64	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-(2-phenylpropyl)ethanediamide	F O O O NH HN
65	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-[2-(4-chlorophenyl)ethyl]ethanediamide	N-NH HN-CI

Table 1

Entry	Name	Structure
66	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N,N'-bis(phenylmethyl)sulfamide	
67	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N,N'-bis(2-phenylethyl)sulfamide	N N N N N N N N N N N N N N N N N N N
68	ethyl [(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)amino](oxo)acetate	CI O O O NH O O
69	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-N'-(2-phenylethyl)ethanediamide	CI O O O NH HN
70	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-N'-(4-fluorophenyl)propanediamide	CI N N N N N N N N N N N N N N N N N N N
71	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-(1,2,3,4-tetrahydronaphthalen-2-yl)ethanediamide	NH HN

Table 1

Entry	Name	Structure
72	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-[2-(1-methylpyrrolidin-2-yl)ethyl]ethanediamide	PO O O NH HN N
73	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'- [2- (phenyloxy)ethyl]ethanediami de	N N N N N N N N N N N N N N N N N N N
74	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-[2-hydroxy-1-(phenylmethyl)ethyl]urea	P OH OH
75	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-3-[(4-methylphenyl)sulfonyl]-4-(phenylmethyl)imidazolidin-2-one	
76	N'-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N-methyl-N-(2-phenylethyl)ethanediamide	F O O O NH N-
77	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-{[3-(trifluoromethyl)phenyl]methyl}ethanediamide	N N F F

Table 1

		Table 1
Entry	Name	Structure
78	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-{2-[3-(trifluoromethyl)phenyl]ethyl}ethanediamide	-O NH HN-
79	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-3-oxo-4-phenylbutanamide	CI N N N N
80	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-2-[3-(trifluoromethyl)phenyl]acetamide	CI N N N F F
81	6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-N-[2-(phenyloxy)ethyl]-1,3-benzothiazol-2-amine	-o S N N
82	6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-N-(2-piperidin-1-ylethyl)-1,3-benzothiazol-2-amine	
83	6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-N-methyl-N-(2-phenylethyl)-1,3-benzothiazol-2-amine	S N N

Table 1

Entry	Name	Structure
84	6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-N-(2-pyrrolidin-1-ylethyl)-1,3-benzothiazol-2-amine	S N N
85	6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-N-{[3-(trifluoromethyl)phenyl]methyl}-1,3-benzothiazol-2-amine	S H F F
86	6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-N-{2-[3-(trifluoromethyl)phenyl]ethyl}-1,3-benzothiazol-2-amine	
87	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-N'-[3-(trifluoromethyl)phenyl]propanediamide	CI N N N N N N N N N N N N N N N N N N N
88	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-1,3-benzothiazol-2-yl)-2-[3-(trifluoromethyl)phenyl]acetamide	$\begin{array}{c c} -0 \\ \hline  & \\ N \end{array}$
89	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-{[3-(trifluoromethyl)phenyl]methyl}glycinamide	F N N N F F

Table 1

Entry	Name	Structure
90	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-(2-phenylethyl)glycinamide	F O HN-NH
91	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-{2-[3-(trifluoromethyl)phenyl]ethyl}glycinamide	F O HN F F
92	benzyl-{[5-chloro-6-(6,7-dimethoxy-quinolin-4-yloxy)-pyridin-3-ylcarbamoyl]-methyl}-carbamic acid tert-butyl ester	CI N N N N N N N N N N N N N N N N N N N
93	N1-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-N2-(phenylmethyl)glycinamide	
94	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-1,3-benzothiazol-2-yl)-2-[3,5-bis(trifluoromethyl)phenyl]acetamide	-O S H O F F F F F F F F F F F F F F F F F F
95	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-fluoro-1,3-benzothiazol-2-yl)-2-[2-chloro-5-(trifluoromethyl)phenyl]acetamide	S H O F F F CI O F F

Table 1

Entry	Name	Structure
96	N-{3-fluoro-4-[(6- (methyloxy)-7-{[(1- methylpiperidin-4- yl)methyl]oxy}quinolin-4- yl)oxy]phenyl}-N'-(2- phenylethyl)ethanediamide	P O O NH HN
97	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-(1,2,3,4-tetrahydroisoquinolin-1-ylmethyl)ethanediamide	N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-
98	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N'-[(2-methyl-1,2,3,4-tetrahydroisoquinolin-1-yl)methyl]ethanediamide	NH HN-NH HN-
99	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-methyl-N2-{[3-(trifluoromethyl)phenyl]methyl}glycinamide	F F F
100	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-methyl-N2-{2-[3-(trifluoromethyl)phenyl]ethyl}glycinamide	F O N F F F
101	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-N2-methyl-N2-(2-phenylethyl)glycinamide	-O NH

Table 1

Entry	Name	Structure
102	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-3-fluorophenyl)-4-(phenylmethyl)imidazolidin-2-one	-O NH NH
103	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}pyridazin-3-yl)-N'-(4-fluorophenyl)propanediamide	
104	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-N'-(2-chlorophenyl)propanediamide	
105	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-N'-(3-chlorophenyl)propanediamide	CI N N N N N CI
106	N1-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-N2-methyl-N2-(phenylmethyl)glycinamide	CI N N
107	N-(6-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}-5-chloropyridin-3-yl)-N'-(4-chlorophenyl)propanediamide	CI N N N N N N CI

Table 1

		table 1
Entry	Name	Structure
108	(2E)-N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-2-[(methyloxy)imino]propanamide	-O NH N-O
109	(2E)-N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-2-[(ethyloxy)imino]propanamide	N-O-NH N-O
110	(2E)-N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-2-{[(phenylmethyl)oxy]imino}propanamide	
111	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-1-(phenylmethyl)prolinamide	
112	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-3-[(4-methylphenyl)sulfonyl]-4-(phenylmethyl)imidazolidin-2-one	
113	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-4-(phenylmethyl)imidazolidin-2-one	

Table 1

Entry	Name	Structure
114	N-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-4-(phenylmethyl)-4,5-dihydro-1,3-oxazol-2-amine	
115	6,7-bis(methyloxy)-4-({4-[4- (phenylmethyl)piperazin-1- yl]phenyl}oxy)quinoline	
116	1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-4-(phenylmethyl)piperazin-2-one	
117	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-N2-(phenylmethyl)alaninamide	ON NH HN
118	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-N2-methyl-N2-(phenylmethyl)alaninamide	N-O-NH N-
119	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-N2-(phenylmethyl)leucinamide	ON NH HN

Table 1

Entry	Name	Structure
120	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-N2-methyl-N2-(phenylmethyl)leucinamide	-O NH N-
121	N1-(4-{[6,7-bis(methyloxy)quinolin-4-yl]oxy}phenyl)-N2-(phenylmethyl)valinamide	NH HN
122	4-(6,7-dimethoxy-quinolin-4- ylamino)-N-(3-phenyl- propyl)-benzamide	
123	4-benzyl-1-[4-(6,7-dimethoxy-quinolin-4-yloxy)-phenyl]-tetrahydro-pyrimidin-2-one	N N N N N N N N N N N N N N N N N N N
124	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- phenethyl-oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

Entry	Name	Structure
125	2-(Benzyl-methyl-amino)-N- [4-(6,7-dimethoxy-quinolin-4- yloxy)-phenyl]-3-methyl- butyramide (note: Alphabetic order of prefixes ignored while selecting parent chain)	N N N N N N N N N N N N N N N N N N N
126	N-[4-(6,7-Dimethoxy-quinolin-4-yloxy)-phenyl]-2-phenoxyimino-propionamide	
127	2-Benzyloxyimino-N-[4-(6,7-dimethoxy-quinolin-4-yloxy)-phenyl]-2-phenyl-acetamide	
128	4-[4-(4-Benzyl-piperidin-1-yl)-phenoxy]-6,7-dimethoxy-quinoline	
129	N-[4-(6,7-Dimethoxy-quinolin-4-yloxy)-3-fluoro-phenyl]-N'-(2-isopropyl-1,2,3,4-tetrahydro-isoquinolin-1-ylmethyl)-oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

Entry	Name	Structure
130	N-[4-(6,7-Dimethoxy-quinolin-4-yloxy)-3-fluoro-phenyl]-N'-(2-ethyl-1,2,3,4-tetrahydro-isoquinolin-1-ylmethyl)-oxalamide	
131	4-(4-{3-Chloro-5-[2-(4-fluoro-phenylcarbamoyl)-acetylamino]-pyridin-2-yloxy}-6-methoxy-quinolin-7-yloxymethyl)-piperidine-1-carboxylic acid tert-butyl ester	CI NH NH NH NH NH
132	N-{5-Chloro-6-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-pyridin-3- yl}-N'-(4-fluoro-phenyl)- malonamide	CI ON NH ON
133	N-{5-Chloro-6-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-pyridin-3-yl}-N'-(4- fluoro-phenyl)-malonamide	

Table 1

Entry	Name	Structure
134	N-{4-[7-(3-Diethylamino- propoxy)-6-methoxy- quinolin-4-yloxy]-3-fluoro- phenyl}-N'-phenethyl- oxalamide	F O O O O O O O O O O O O O O O O O O O
135	N-{3-Fluoro-4-[6-methoxy-7- (3-morpholin-4-yl-propoxy)- quinolin-4-yloxy]-phenyl}-N'- phenethyl-oxalamide	
136	N-{3-Fluoro-4-[6-methoxy-7-(3-piperidin-1-yl-propoxy)-quinolin-4-yloxy]-phenyl}-N'-phenethyl-oxalamide	F N N H
137	N-{4-[7-(2-Diethylamino- ethoxy)-6-methoxy-quinolin- 4-yloxy]-3-fluoro-phenyl}-N'- phenethyl-oxalamide	

Table 1

Entry	Name	Structure
138	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-methyl-N'- phenethyl-oxalamide	
139	N-{3-Fluoro-4-[6-methoxy-7- (2-methyl-octahydro- cyclopenta[c]pyrrol-5- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-phenethyl- oxalamide	
140	N-{3-Fluoro-4-[6-methoxy-7- (2-methyl-octahydro- cyclopenta[c]pyrrol-5- ylmethoxy)-quinazolin-4- yloxy]-phenyl}-N'-phenethyl- oxalamide	
141	2-(3,4-Dihydro-1H- isoquinolin-2-yl)-N-{3-fluoro- 4-[6-methoxy-7-(1-methyl- piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-2- oxo-acetamide	

Table 1

Entry	Name	Structure
142	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-2- oxo-2-(3-phenyl-pyrrolidin-1- yl)-acetamide	
143	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-2- oxo-2-(2-phenyl-morpholin-4- yl)-acetamide	L L L L L L L L L L L L L L L L L L L
144	N-(2-Dimethylamino-2-phenyl-ethyl)-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	NH HN HN
145	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-oxo-2-phenyl-ethyl)- oxalamide	F O H H H H H H H H H H H H H H H H H H

Table 1

Entry	Name	Structure
146	N-[5-Chloro-6-(6,7-dimethoxy-quinolin-4-yloxy)-pyridin-3-yl]-2,2-difluoro-N'-(4-fluoro-phenyl)-malonamide	CI ON THE TENT OF
147	N-Benzyl-N'-{3-fluoro-4-[6-methoxy-7-(1-methyl-piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	
148	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(2-fluoro-phenyl)-ethyl]- oxalamide	F O HN HN F
149	N-[2-(3-Chloro-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	THE CI

Table 1

Entry	Name	Structure
150	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(2-methoxy-phenyl)-ethyl]- oxalamide	F NH HN
151	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-pyridin-3-yl-ethyl)- oxalamide	
152	N-Benzyl-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	F N HN
153	N-[2-(2,5-Dimethoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	

Table 1

r		Table 1
Entry	Name	Structure
154	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(2-trifluoromethyl-phenyl)- ethyl]-oxalamide	F F F
155	N-[2-(2-Ethoxy-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	
156	N-[2-(2,4-Dimethyl-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	
157	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1S -phenyl-2-p-tolyl-ethyl)- oxalamide	

Table 1

		1 abic 1
Entry	Name	Structure
158	N-[2-(4-Chloro-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	The state of the s
159	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamic acid	N N OH
160	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(3-fluoro-phenyl)-ethyl]- oxalamide	F O O HIN F
161	N-[2-(2-Chloro-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	E C C

Table 1

Entry	Name	Structure
162	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(3-methoxy-phenyl)-ethyl]- oxalamide	
163	N-(1,2-Diphenyl-ethyl)-N'-{3- fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	F N HN HN
164	N-[2-(2,4-Dichloro-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	
165	N-[2-(3,4-Dimethoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	

Table 1

		The state of the s
Entry	Name	Structure
166	N-[2-(4-Ethyl-phenyl)-ethyl]- N'-{3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	F HN HN
167	N-[2-(4-Ethoxy-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	
168	N-[2-(4-Ethoxy-3-methoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	

Table 1

Entry	Name	Structure
169	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(4-phenoxy-phenyl)-ethyl]- oxalamide	
170	N-[2-(3-Ethoxy-4-methoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	F N HN HN
171	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-pyridin-2-yl-ethyl)- oxalamide	F O HE N
172	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-pyridin-4-yl-ethyl)- oxalamide	F O HN HN N

Table 1

Entry	Name	Structure
173	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(4-fluoro-phenyl)-ethyl]- oxalamide	F P P P P P P P P P P P P P P P P P P P
174	N-[2-(2-Bromo-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	F N N HN Br
175	N-[2-(2-Chloro-6-fluoro-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	L CI
176	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2R-phenyl-propyl)-oxalamide	

Table 1

Entry	Name	Structure
177	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- indan-1-yl-oxalamide	
178	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-isobutyl- oxalamide	F N HN
179	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-(3-methyl- butyl)-oxalamide	
180	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-(2 <i>R</i> - phenyl-propyl)-oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

ſ		
Entry	Name	Structure
181	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-(2-phenyl- propyl)-oxalamide	
182	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-indan-2-yl- oxalamide	
183	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1 <i>R</i> -phenyl-ethyl)-oxalamide	THE PROPERTY OF THE PROPERTY O
184	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1S-phenyl-ethyl)-oxalamide	NH HN HN

Table 1

Entry	Name	Structure
185	N-[2-(3-Bromo-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	PH NH NH NH
186	N-[2-(2,6-Dichloro-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	ZH CI
187	N-[2-(2,4-Dichloro-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	NH CI NH CI CI
188	N-(2-Benzo[1,3]dioxol-5-yl-ethyl)-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	

Table 1

Entry	Name	Structure
189	N-[2-(3-Bromo-4-methoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	N N N N N N N N N N N N N N N N N N N
190	N-[2-(3,5-Dimethoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	
191	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-o-tolyl-ethyl)-oxalamide	NH NH NH

Table 1

Entry	Name	Structure
192	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-m-tolyl-ethyl)-oxalamide	
193	N-[2-(3-Ethoxy-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	
194	N-[2-(3,4-Dimethyl-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	
195	N-[2-(2,5-Dimethyl-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	

Table 1

Entry	Name	Structure
196	N-[2-(3-Chloro-4-propoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	P O O O O O O O O O O O O O O O O O O O
197	N-[2-(4-Butoxy-3-chloro-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	
198	N-[2-(4-tert-Butyl-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	

Table 1

Entry	Name	Structure
199	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(4-sulfamoyl-phenyl)- ethyl]-oxalamide	H <sub>2</sub> N <sub>2</sub> S <sub>0</sub>
200	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(4-hydroxy-3-methoxy- phenyl)-ethyl]-oxalamide	N N N N N N N N N N N N N N N N N N N
201	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(3-hydroxy-4-methoxy- phenyl)-ethyl]-oxalamide	

Table 1

Entry	Name	Structure
202	N-(2,4-Dichloro-benzyl)-N'- {3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
203	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (4-fluoro-2-trifluoromethyl- benzyl)-oxalamide	
204	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1-p-tolyl-ethyl)-oxalamide	

Table 1

Entry	Name	Structure
205	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (3-fluoro-4-trifluoromethyl- benzyl)-oxalamide	F O O O O O O O O O O O O O O O O O O O
206	N-(3-Chloro-4-fluoro-benzyl)- N'-{3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
207	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [1-(3-methoxy-phenyl)-ethyl]- oxalamide	

Table 1

Entry	Name	Structure
208	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1-naphthalen-2-yl-ethyl)- oxalamide	
209	N-(4-Chloro-3- trifluoromethyl-benzyl)-N'- {3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
210	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1-p-tolyl-ethyl)-oxalamide	F O N N N N N N N N N N N N N N N N N N

Table 1

Entry	Name	Structure
211	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (6-trifluoromethyl-pyridin-3- ylmethyl)-oxalamide	F O NH NH CF3
212	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-methyl-benzyl)-oxalamide	F O O O O O O O O O O O O O O O O O O O
213	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (3-methyl-benzyl)-oxalamide	

Table 1

ĺ	Entry	Name	Structure
	214	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (4-fluoro-3-trifluoromethyl- benzyl)-oxalamide	F <sub>3</sub> C F
	215	N-(3,5-Dichloro-benzyl)-N'- {3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	F O O O O O O O O O O O O O O O O O O O
	216	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1R,2,3,4-tetrahydro- naphthalen-1-yl)-oxalamide	
	217	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1S,2,3,4-tetrahydro- naphthalen-1-yl)-oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

Entry	Name	Structure
218	N-Cyclopentyl-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	THE STATE OF THE S
219	N-[1-(4-Bromo-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	
220	N-(2-Fluoro-benzyl)-N'-{3- fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
221	N-[2-(3,4-Dichloro-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	THE STATE OF THE S

Table 1

	N	C4
Entry	Name	Structure
222	N-(4-Fluoro-benzyl)-N'-{3- fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
223	N-(2,3-Difluoro-benzyl)-N'- {3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
224	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-phenoxy-ethyl)-oxalamide	
225	N-(2,2-Diphenyl-ethyl)-N'-{3- fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	

Table 1

Entry	Name	Structure
226	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [2-(4-methoxy-phenyl)-ethyl]- oxalamide	
227	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-phenyl-propyl)-oxalamide	
228	N-[2-(4-Bromo-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	Br Br
229	N-{4-[7-(1-Ethyl-piperidin-4-ylmethoxy)-6-methoxy-quinolin-4-yloxy]-3-fluoro-phenyl}-2-oxo-2-(2-phenyl-morpholin-4-yl)-acetamide	

Table 1

Entry	Name	Structure
230	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (3-fluoro-5-trifluoromethyl- benzyl)-oxalamide	F <sub>3</sub> C F
231	N-(3,5-Difluoro-benzyl)-N'- {3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	F F
232	N-(2-Chloro-5- trifluoromethyl-benzyl)-N'- {3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	PH CI
233	N-[4-(6,7-Dimethoxy-quinolin-4-yloxy)-3-fluoro-phenyl]-N'-(2-dimethylamino-2-phenyl-ethyl)-oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

Entry	Name	Structure
234	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (4-methoxy-benzyl)- oxalamide	
235	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (4-trifluoromethyl-benzyl)- oxalamide	F O N N N N N N N N N N N N N N N N N N
236	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (3-methoxy-benzyl)- oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

Entry	Name	Structure
237	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (3-trifluoromethyl-benzyl)- oxalamide	F <sub>3</sub> C
238	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (3-trifluoromethoxy-benzyl)- oxalamide	F <sub>3</sub> C <sub>0</sub>
239	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-methoxy-benzyl)- oxalamide	
240	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-trifluoromethyl-benzyl)- oxalamide	F <sub>3</sub> C

Table 1

Entry	Name	Structure
241	N-(3-Chloro-benzyl)-N'-{3- fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
242	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-trifluoromethoxy-benzyl)- oxalamide	F <sub>3</sub> C
243	N-(2-Chloro-benzyl)-N'-{3- fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	

Table 1

Entry	Name	Structure
244	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (4-trifluoromethoxy-benzyl)- oxalamide	F <sub>3</sub> C
245	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-(4- methoxy-benzyl)-oxalamide	
246	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-(4- trifluoromethyl-benzyl)- oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

Entry	Name	Structure
247	N-{4-[7-(Azetidin-3- ylmethoxy)-6-methoxy- quinolin-4-yloxy]-3-fluoro- phenyl}-N'-phenethyl- oxalamide	
248	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-azetidin-3- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-phenethyl- oxalamide	N N N N N N N N N N N N N N N N N N N
249	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-hydroxy-2-phenyl-ethyl)- oxalamide	H OH
250	N-[5-Chloro-6-(6,7-dimethoxy-quinolin-4-yloxy)-pyridin-3-yl]-N'-(2,4-difluoro-phenyl)-malonamide	

Table 1

Entry	Name	Structure
251	N-[5-Chloro-6-(6,7-dimethoxy-quinolin-4-yloxy)-pyridin-3-yl]-N'-(4-fluoro-phenyl)-N'-methyl-malonamide	
252	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1R-phenyl-propyl)- oxalamide	
253	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (1R-phenyl-propyl)- oxalamide	

Table 1

Entry	Name	Structure
254	N-(3,4-Difluoro-benzyl)-N'- {3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	F P NH P F F
255	N-(2,6-Difluoro-benzyl)-N'- {3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
256	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-[2-(4- fluoro-phenyl)-ethyl]- oxalamide	F NH
257	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-N'-phenyl- oxalamide	F NH NH

Table 1

Entry	Name	Structure
258	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (3-fluoro-phenyl)-oxalamide	
259	N-(4-Chloro-3-fluoro-phenyl)-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	L O O O O O O O O O O O O O O O O O O O
260	N-(3,4-Dimethoxy-phenyl)- N'-{3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	F O O O O O O O O O O O O O O O O O O O
261	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (3-methyl-butyl)-oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

		1 able 1
Entry	Name	Structure
262	N-(3,3-Dimethyl-butyl)-N'- {3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	N N N N N N N N N N N N N N N N N N N
263	N-{5-Chloro-6-[6-methoxy-7- (3-piperidin-1-yl-propoxy)- quinolin-4-yloxy]-pyridin-3- yl}-N'-(4-fluoro-phenyl)- malonamide	
264	N-{5-Chloro-6-[6-methoxy-7-(3-morpholin-4-yl-propoxy)-quinolin-4-yloxy]-pyridin-3-yl}-N'-(4-fluoro-phenyl)-malonamide	

Table 1

Entry	Name	Structure
265	N-{5-Chloro-6-[7-(3-diethylamino-propoxy)-6-methoxy-quinolin-4-yloxy]-pyridin-3-yl}-N'-(4-fluoro-phenyl)-malonamide	
266	N-(4-Chloro-benzyl)-N'-{3- fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
267	N-(3,5-Dimethoxy-benzyl)- N'-{3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	NH N

Table 1

		Table 1
Entry	Name	Structure
268	N-(4-Butyl-benzyl)-N'-{3- fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	F NH NH
269	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-p-tolyl-ethyl)-oxalamide	
270	N-(3,5-Bis-trifluoromethyl- benzyl)-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	F <sub>3</sub> C CF <sub>3</sub>

Table 1

Entry	Name	Structure
271	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- pyrazin-2-ylmethyl-oxalamide	
272	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- pyridin-2-ylmethyl-oxalamide	
273	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinazolin-4-yloxy]-phenyl}- N'-phenethyl-oxalamide	
274	N-{3-Fluoro-4-[6-methoxy-7- (1-methyl-piperidin-4- ylmethoxy)-quinazolin-4- yloxy]-phenyl}-N'-phenethyl- oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

Entry	Name	Structure
275	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-fluoro-3-trifluoromethyl- benzyl)-oxalamide	F <sub>3</sub> C
276	N-[2-(2-Bromo-6-methoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	N N N N N N N N N N N N N N N N N N N
277	N-[2-(3,4-Dimethoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-N-methyloxalamide	
278	N-[2-(5-Bromo-2-methoxy-phenyl)-ethyl]-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	Br Br

Table 1

Entry	Name	Structure
279	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-fluoro-5-trifluoromethyl- benzyl)-oxalamide	F O O NH NH F CF3
280	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- [1-(4-fluoro-phenyl)-ethyl]- oxalamide	
281	N-(1S-Benzyl-2-oxo-2-pyrrolidin-1-yl-ethyl)-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	F N HN, N N
282	N-{3-Fluoro-4-[6-methoxy-7- (octahydro- cyclopenta[c]pyrrol-5- ylmethoxy)-quinazolin-4- yloxy]-phenyl}-N'-phenethyl- oxalamide	H N N N N N N N N N N N N N N N N N N N

Table 1

Table 1		
Entry	Name	Structure
283	N-[2-(4-Amino-phenyl)- ethyl]-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	H <sub>2</sub> N
284	2-(4-Benzyl-piperidin-1-yl)- N-{3-fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-2- oxo-acetamide	
285	N-[4-(6,7-Dimethoxy-quinolin-4-yloxy)-phenyl]-N'-(4-fluoro-phenyl)-malonamide	

;

Table 1

Entry	Name	Structure
286	N-[5-Chloro-6-(6,7-dimethoxy-quinolin-4-yloxy)-pyridin-3-yl]-N'-(3-fluoro-phenyl)-malonamide	CI ON HE NO PER SERVICE OF THE P
287	N-[5-Chloro-6-(6,7- dimethoxy-quinolin-4-yloxy)- pyridin-3-yl]-N'-phenyl- malonamide	
288	N-[5-Chloro-6-(6,7-dimethoxy-quinolin-4-yloxy)-pyridin-3-yl]-N'-(4-fluoro-phenyl)-2,2-dimethyl-malonamide	
289	N-Ethyl-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-oxalamide	F O O O O O O O O O O O O O O O O O O O

Table 1

Entry	Name	Structure
290	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- isopropyl-oxalamide	F N N N N N N N N N N N N N N N N N N N
291	N-Butyl-N'-{3-fluoro-4-[6- methoxy-7-(piperidin-4- ylmethoxy)-quinolin-4- yloxy]-phenyl}-oxalamide	N N N N N N N N N N N N N N N N N N N
292	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-methoxy-ethyl)-oxalamide	The state of the s
293	N-Cyclopropylmethyl-N'-{3- fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}- oxalamide	
294	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-N'- (2-morpholin-4-yl-ethyl)- oxalamide	

Table 1

Entry	Name	Structure
295	N-{3-Fluoro-4-[6-methoxy-7- (piperidin-4-ylmethoxy)- quinolin-4-yloxy]-phenyl}-2- oxo-2-pyrrolidin-1-yl- acetamide	
296	N-Ethyl-N'-{3-fluoro-4-[6-methoxy-7-(piperidin-4-ylmethoxy)-quinolin-4-yloxy]-phenyl}-N-methyloxalamide	N N N N N N N N N N N N N N N N N N N

[0078] In another aspect, the invention comprises a compound for modulating kinase activity of formula A-B-C, or a pharmaceutically acceptable salt, hydrate, or prodrug thereof, wherein, A is selected from:

-R <sup>3</sup>	R8—N 0-2	R8 N O N 1-4
ON ON 1-4	N $1-4$	0-2() R9 R10 R11
R8—N 0-2	R <sup>8</sup> N N R <sup>8</sup> 1-4	O R8 N 1-4

N R <sup>8</sup>	NR8 () <sub>0-2</sub>	0 N N 1-4
R <sup>8</sup> N 1-4	0 N 1-4	R8 N 1-4
N 1-4	R <sup>3</sup>   N 1 2-4	$\bigcup_{N \to N} \bigvee_{1-4}$
S(O) <sub>0-2</sub>	O=\(\sigma_{N-2}\) \(\sigma_{1-4}\)	5 - 1-4

## B is selected from:

}-0	R <sup>5</sup> N A <sup>1</sup> R <sup>3</sup> -O N	S(O) <sub>0-2</sub>
R3-0 A1	R <sup>5</sup> N A <sup>1</sup>	S(O) <sub>0-2</sub> R <sup>3</sup> -O  N

## and, C is selected from:

wherein  $R^2$  is selected from -H, halogen, trihalomethyl, -CN, -NH<sub>2</sub>, -NO<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>3</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)C(O)R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -C(O)R<sup>3</sup>, and optionally substituted lower alkyl;

## q is 0 to 2;

each R<sup>3</sup> is independently selected from -H, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted arylalkyl, and optionally substituted heteroarylalkyl;

two R<sup>3</sup>, together with the nitrogen to which they are attached, form a four- to seven-membered heteroalicyclic, said four- to seven-membered heteroalicyclic optionally containing one additional heteroatom; when one said additional heteroatom is a nitrogen, then said nitrogen is optionally substituted with a group selected from -H, trihalomethyl, -SO<sub>2</sub>R<sup>5</sup>, -SO<sub>2</sub>NR<sup>5</sup>R<sup>5</sup>, -CO<sub>2</sub>R<sup>5</sup>, -C(O)NR<sup>5</sup>R<sup>5</sup>, -C(O)R<sup>5</sup>, and optionally substituted lower alkyl;

each  $R^{35}$  is independently selected from -H, -C(=O) $R^3$ , -C(=O)O $R^3$ , -C(=O)S $R^3$ , -SO<sub>2</sub> $R^3$ , -C(=O)N( $R^3$ ) $R^3$ , and optionally substituted lower alkyl;

two  $R^{35}$ , together with the nitrogen to which they are attached, can combine to form a heteroalicyclic optionally substituted with between one and four of  $R^{60}$ , said heteroalicyclic may have an additional annular heteroatom, and said heteroalicyclic may have an aryl fused thereto, said aryl optionally substituted with an additional one to four of  $R^{60}$ ;

 $A^1$  is selected from =N-, =C(H)-, and =C(CN)-;

 $A^2$  is either =N- or =C(H)-:

R<sup>5</sup> is -H or optionally substituted lower alkyl;

 $R^8$  is selected from  $R^3$ ,  $-SO_2NR^3R^3$ ,  $-CO_2R^3$ ,  $-C(O)NR^3R^3$ ,  $-SO_2R^3$ , and  $-C(O)R^3$ ;

R<sup>9</sup>, R<sup>10</sup>, and R<sup>11</sup> are each independently selected from -H, and -OR<sup>12</sup>; or

R<sup>9</sup> is selected from -H, and -OR<sup>12</sup>, and R<sup>10</sup> and R<sup>11</sup>, when taken together, are either an optionally substituted alkylidene or an oxo; and

R<sup>12</sup> is selected from -H, -C(O)R<sup>3</sup>, optionally substituted lower alkylidyne, optionally substituted lower arylalkylidyne, optionally substituted lower alkylidene, optionally substituted lower alkylidenearyl, optionally substituted lower alkylideneheterocyclyl, optionally substituted lower alkylideneheterocyclyl, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted lower heterocyclylalkyl, and optionally substituted heterocyclyl;

or two  $R^{12}$ 's, when taken together, form 1) a corresponding spirocyclic ketal when said two  $R^{12}$ 's stem from  $R^{10}$  and  $R^{11}$ , or 2) a corresponding cyclic ketal when said two  $R^{12}$ 's stem from  $R^{9}$  and one of  $R^{10}$  and  $R^{11}$ ;

 $E^1$  is selected from -O-, -CH<sub>2</sub>-, -N(R<sup>5</sup>)-, and -S(O)<sub>0-2</sub>-;

Q is a five- to ten-membered ring system, optionally substituted with between zero and four of R<sup>20</sup>;

 $R^{20}$  is selected from -H, halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>3</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, and optionally substituted lower alkyl;

 $R^{60}$  is selected from -H, halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>3</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)C(O)R<sup>3</sup>,

 $-N(R^3)CO_2R^3$ ,  $-C(O)R^3$ , optionally substituted lower alkyl, optionally substituted aryl, optionally substituted heteroarylalkyl, and optionally substituted arylalkyl;

two of R<sup>60</sup>, when attached to a non-aromatic carbon, can be oxo;

each methylene in any of the above formulae is independently optionally substituted with  $R^{25}$ :

each  $R^{25}$  is independently selected from halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>3</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)C(O)R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -C(O)R<sup>3</sup>, optionally substituted aryl, optionally substituted arylalkyl, heteroarylalkyl, and optionally substituted lower alkyl; two of  $R^{25}$ , together with the carbon or carbons to which they are attached, can combine to form a three- to seven-membered alicyclic or heteroalicyclic, two of  $R^{25}$  on a single carbon can be oxo;

with the proviso that when B is selected from:

and C contains

 $(R^2)_q$ , and the remaining portion of C contains one of:

directly attached to 
$$(R^2)_q$$
 , then A must be one of:

N R8	R8—N () <sub>0-2</sub>	R <sup>8</sup> N O O O O O O O O O O O O O O O O O O
ON ON 1-4	O N 1-4	0-2 R <sup>9</sup> R <sup>10</sup> R <sup>11</sup>
R8—N ()0-2	R <sup>8</sup> N N R <sup>8</sup> 1-4	O R8  N 1-4
N $N$ $1-4$	NR8 () <sub>0-2</sub>	

and with the proviso that when C contains 
$$(R^2)_q$$
, and B is selected from:

$$(\mathbb{R}^2)_{\mathfrak{q}}$$

cannot

contain

then the portion of C directly attached to

$$\mathbb{R}^{70}$$
  $\mathbb{R}^{70}$  , when  $\mathbb{R}^{70}$  is selected from -H,  $\mathbb{C}_{1\text{-4}}$  alkyl, and  $\mathbb{C}_{1\text{-4}}$  alkoxyl.

[0079] In another example the compound is according to paragraph [0078], wherein Q is selected from phenyl, napthyl, 1,2,3,4-tetrahydronaphthyl, indanyl, benzodioxanyl, benzofuranyl, phenazinyl, phenothiazinyl, phenoxazinyl, tetrahydroisoguinolyl, pyrrolyl, pyrazolyl, pyrazolidinyl, imidazolyl, imidazolinyl, imidazolidinyl, tetrahydropyridinyl, pyridinyl, pyrazinyl, pyrimidinyl, pyridazinyl, oxazolyl, oxazolinyl, oxazolidinyl, triazolyl, isoxazolyl, isoxazolidinyl, thiazolyl, thiazolinyl, thiazolidinyl, isothiazolyl, isothiazolidinyl, indolyl, isoindolyl, indolinyl, isoindolinyl, octahydroindolyl, octahydroisoindolyl, quinolyl, isoquinolyl, benzimidazolyl, thiadiazolyl, benzopyranyl, benzothiazolyl, benzoxazolyl, furyl, thienyl, benzothieliyl, and oxadiazolyl; each optionally substituted with between one and four of R<sup>20</sup>; wherein each R<sup>20</sup> is independently selected from -H, halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>3</sup>,  $-CO_2R^3$ ,  $-C(O)NR^3R^3$ ,  $-N(R^3)SO_2R^3$ ,  $-N(R^3)C(O)R^3$ ,  $-N(R^3)CO_2R^3$ ,  $-C(O)R^3$ , and optionally substituted lower alkyl.

[0080] In another example the compound is according to paragraph [0079], wherein B is either of the following:

$$R^{3}-O$$
 $A^{1}$ 
 $A^{1}$ 
 $A^{2}$ 
 $A^{3}$ 

wherein  $A^1$  is either =N- or =C(H)-.

[0081] In another example the compound is according to paragraph [0080], wherein B is

[0082] In another example the compound is according to paragraph [0081], wherein C is selected from:

wherein R<sup>2</sup>, R<sup>3</sup>, R<sup>5</sup>, R<sup>20</sup>, R<sup>25</sup> and R<sup>60</sup> are as defined above.

[0083] In another example the compound is according to paragraph [0082],  $R^2$  is selected from halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)C(O)R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -C(O)R<sup>3</sup>, and optionally substituted lower alkyl

[0084] In another example the compound is according to paragraph [0083], wherein R<sup>2</sup> is halogen.

[0085] In another example the compound is according to paragraph [0084], wherein R<sup>2</sup> is either fluorine or chlorine.

[0086] In another aspect, the invention comprises a compound for modulating kinase activity according to Formula XI,

$$(R^{1})_{0-4} = \begin{pmatrix} R^{30} \\ R^{30} \\ R^{30} \\ R^{30} \\ R^{30} \\ R^{40} \\ R^{40} \\ R^{70} \\ XI$$

or a pharmaceutically acceptable salt, hydrate, or prodrug thereof, wherein,

each  $R^1$  is independently selected from halogen, -OR<sup>3</sup>, -NO<sub>2</sub>, -NH<sub>2</sub>, -NR<sup>3</sup>R<sup>4</sup>, -D-R<sup>50</sup> and optionally substituted  $C_{1-6}$ alkyl;

 $R^{70}$  is selected from -H, halogen,  $-OR^3$ ,  $-S(O)_{0-2}R^3$ ,  $-NO_2$ ,  $-NH_2$ ,  $-NR^3R^4$ , and optionally substituted  $C_{1-6}$ alkyl;

Q is selected from =N-, =C(H)-, and =C(CN)-;

Z is selected from -S(O)<sub>0-2</sub>-, -O-, and -NR<sup>5</sup>-;

Ar is either a five- or six-membered arylene or a five- or six-membered heteroarylene containing between one and three heteroatoms;

G is either an optionally substituted cycloalkyl or an optionally substituted heteroalicyclic; each  $R^2$  is independently selected from halogen, trihalomethyl, -CN, -NO<sub>2</sub>, -NH<sub>2</sub>, -OR<sup>3</sup>, -NR<sup>3</sup>R<sup>4</sup>, -S(O)<sub>0-2</sub>R<sup>3</sup>, -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>, -CO<sub>2</sub>R<sup>3</sup>, -C(O)NR<sup>3</sup>R<sup>3</sup>, -N(R<sup>3</sup>)SO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, -N(R<sup>3</sup>)CO<sub>2</sub>R<sup>3</sup>, and optionally substituted  $C_{1\text{-}6}$ alkyl;

each R<sup>3</sup> is independently -H or R<sup>4</sup>;

each  $R^4$  is independently selected from optionally substituted  $C_{1-6}$ alkyl, optionally substituted aryl, optionally substituted aryl  $C_{1-6}$ alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclyl  $C_{1-6}$ alkyl; or

R<sup>3</sup> and R<sup>4</sup>, when taken together with a common nitrogen to which they are attached, form an optionally substituted five- to seven-membered heterocyclyl, said optionally substituted five- to seven-membered heterocyclyl optionally containing at least one additional annular heteroatom selected from N, O, S, and P;

R<sup>5</sup> is -H or optionally substituted C<sub>1-6</sub>alkyl;

each D is independently selected from -O-, -S(O)<sub>0-2</sub>-, and -NR<sup>5</sup>-;

each R<sup>50</sup> is independently either R<sup>3</sup>, or according to formula XII;

$$(X^{1})_{m}$$
  $(X^{3})_{n}$   $(X^{1})_{p}$ 

XII

wherein  $X^1$ ,  $X^2$ , and optionally  $X^3$ , represent the atoms of a saturated bridged ring system, said saturated bridged ring system comprising up to four annular heteroatoms represented by any of  $X^1$ ,  $X^2$ , and  $X^3$ ; wherein,